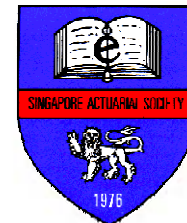


# Pre-funding of Healthcare Expenses: The German Private Health Insurance Model

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# Agenda

1. Why pre-funding?
2. The German health insurance system
3. The German Private Health Insurance product
4. Old-age provisions
5. Conclusion

# Why pre-funding?

- (Public) Health care systems in Asia face problems
  - Sustainability
    - Ageing populations
    - Low birth rates
    - Increasing incidence of chronic illnesses
    - Changes in Lifestyle (diet, smoking, etc.)
    - High medical inflation
    - Aggravated by single household structure

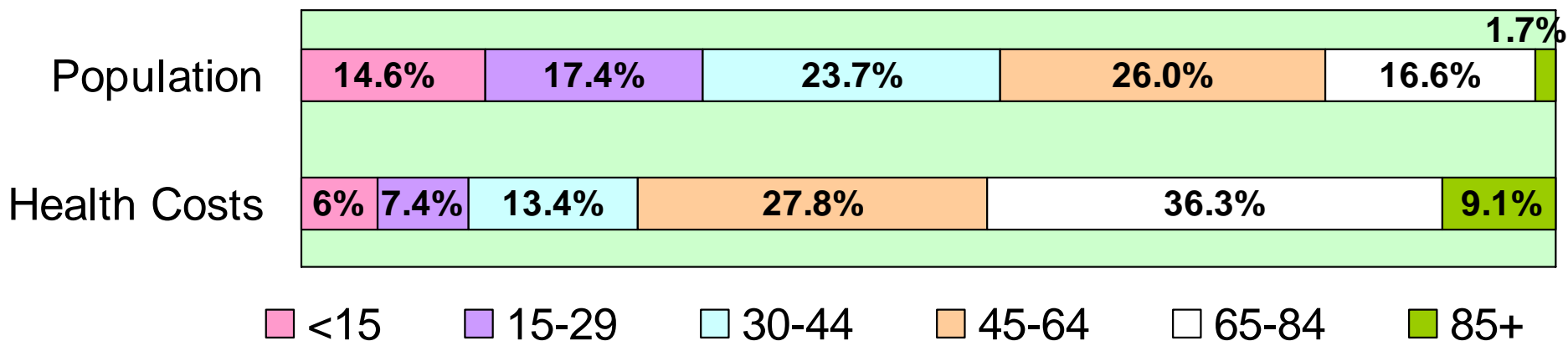
# Health insurance – how it should look like!

Affordable financial protection  
against unforeseen large or continuous expenses  
from optimum acute medical treatment  
**throughout life.**

# Health insurance – how it looks like!

- Typical health insurance plans in Asia:
  - Cover may not be guaranteed renewable
  - Annual and lifetime limits are not inflation protected
  - Cover often terminates at important age
  - Stepped premiums (unaffordable at higher ages)

# Distribution of health care costs (Germany, 2004)



- More than 45% of total health care costs are spent on population aged 65+
- Health care costs in the age group 85+ is more than 4 times higher than the respective proportion of 85+ year olds in the population

Source: Statistische Bundesamt, Gesundheit, Ausgabe 2004

# Financing health care costs

- Aged 43, if you spend \$100 for health care (in one year for a particular category), what would you spend as an 83-year old in today's money?

Category	Male	Female
out-patient	523	291
o-p with \$600 deduct.	883	359
dental	103	79
medication	669	466
hospitalisation	975	694

Source: PKV Zahlenbericht 2004/05

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# The German health insurance system

- In 1848 the first private sick fund was founded (sick fund for the civil servants of the Berlin police)
- Health insurance as part of the social security system was introduced in 1883
- It offers a wide spectrum of benefits
- ...and is in need of reformation – it is a sick patient!
- A resident in Germany may be covered on a compulsory or voluntary basis or not at all

# The German health insurance system

- An employee with an gross annual income of up to €47,250 (2006) is MANDATORY member
  - In one of 253 (as at 01.01.06) public sick funds
  - Non-income family members are covered in the same fund
- An employee with a higher income can remain a VOLUNTARY member or take out Private Health Insurance (PHI)
- The comprehensive PHI is embedded in the Social Security System (by law)
- Generally no return to public sick funds once privately insured (for those older than 54 years only in case of long-term unemployment)

# The German health insurance system

- Self-employed: often PHI but can also be voluntary member of public sick funds
- Civil servants: often PHI (if at all)

# The German health insurance system

- Financing
  - Public sick funds
    - “pay-as-you-go” system
    - Contribution depends on income level (capped)
    - Employer and employee share cost (50:50 of base contribution, e’ee pays additional 0.9% of (capped) income)
  - Comprehensive private health insurance
    - Plan-dependent
    - Dependent on age at entry and sex
    - Typically employer participates in premium payment but not more than under membership in a public sick fund

# The German health insurance system

2005 population: 80.7 mn

1.6mn with other cover, 0.2mn without

ca. 8 mn supplementary private insurance  
€4.3 bn premium (2004)

Total: 70.5 mn members in sick funds (incl. families)      €140.3 bn contribution

61.7 mn compulsory members of sick funds

€120.0 bn contribution

8.8 mn voluntary members of sick funds

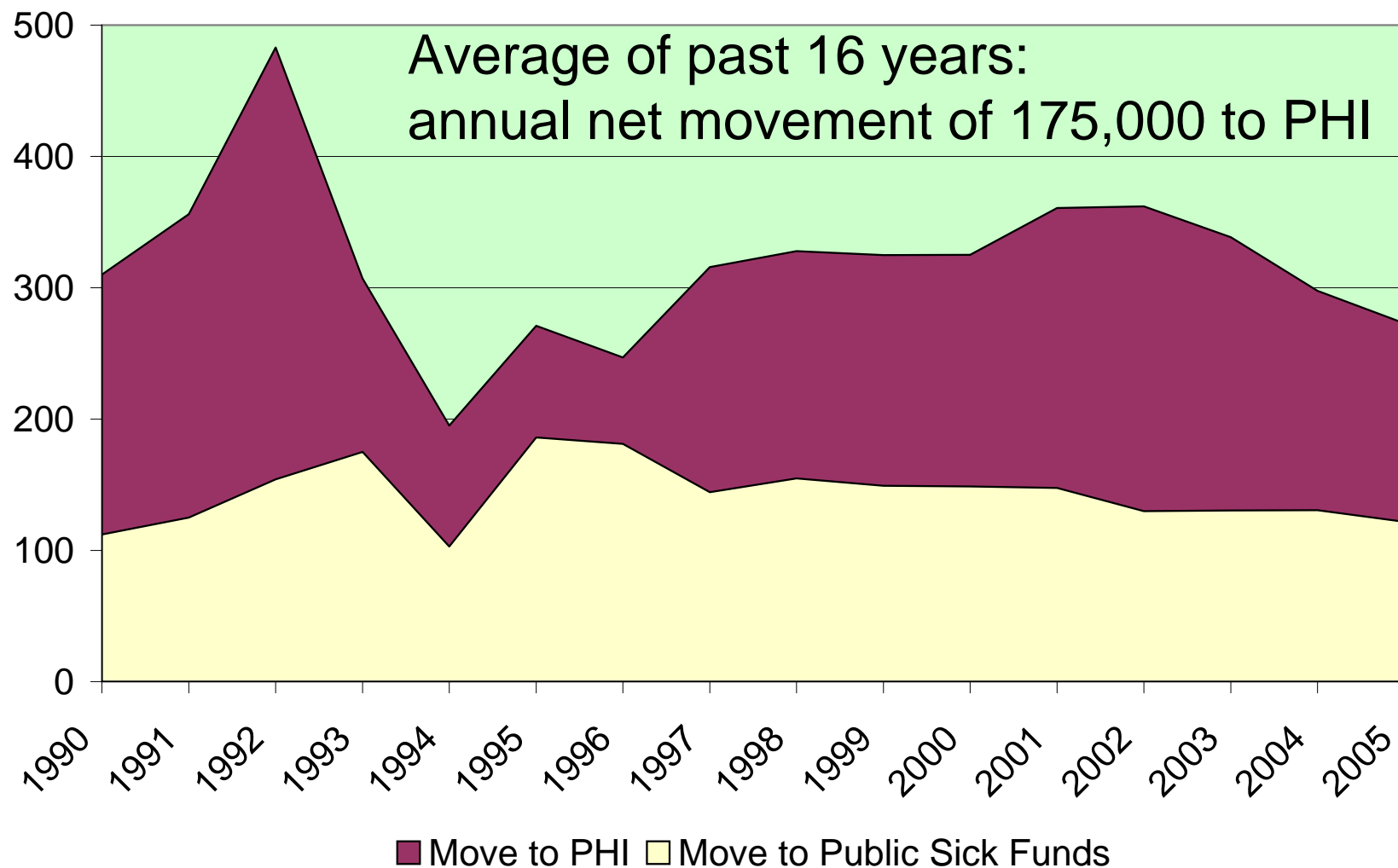
€20.3 bn contribution

8.4 mn comprehensive private health insurance

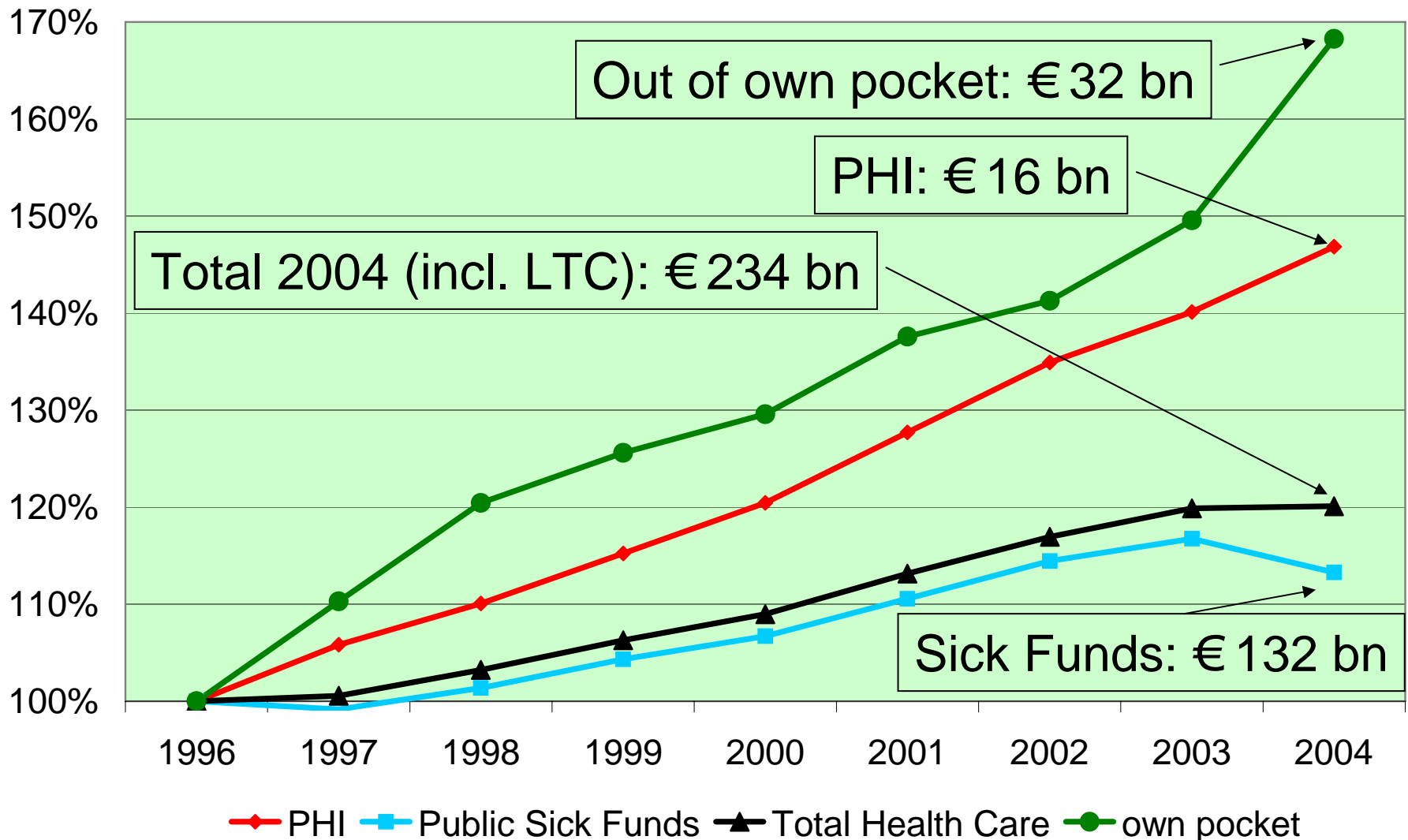
€20.0 bn premium (2004)

competition between sick funds and PHI

# Popularity of PHI vs. public sick funds



# Development of health care expenses



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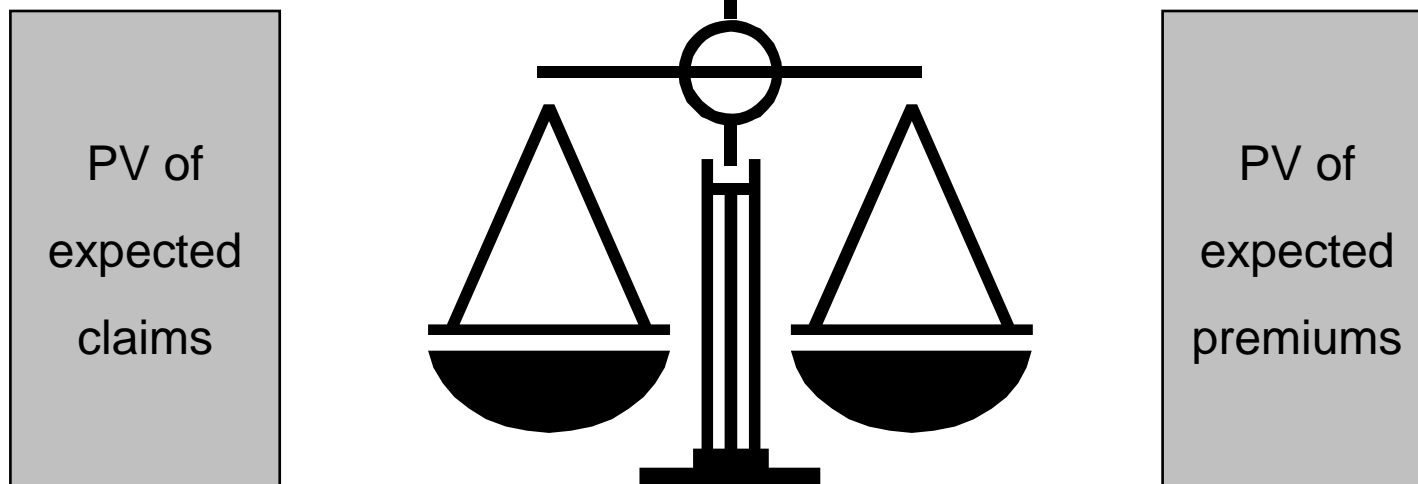
# The German private health insurance

- Comprehensive PHI is offered by specially licensed health insurers
- Appointed Actuary
- Lifetime cover (renewal) guaranteed
- No lifetime limits and very few limitations for special treatment (e.g. psychotherapy)
- Premium review possible subject to approval by independent trustee and after filing with supervisor

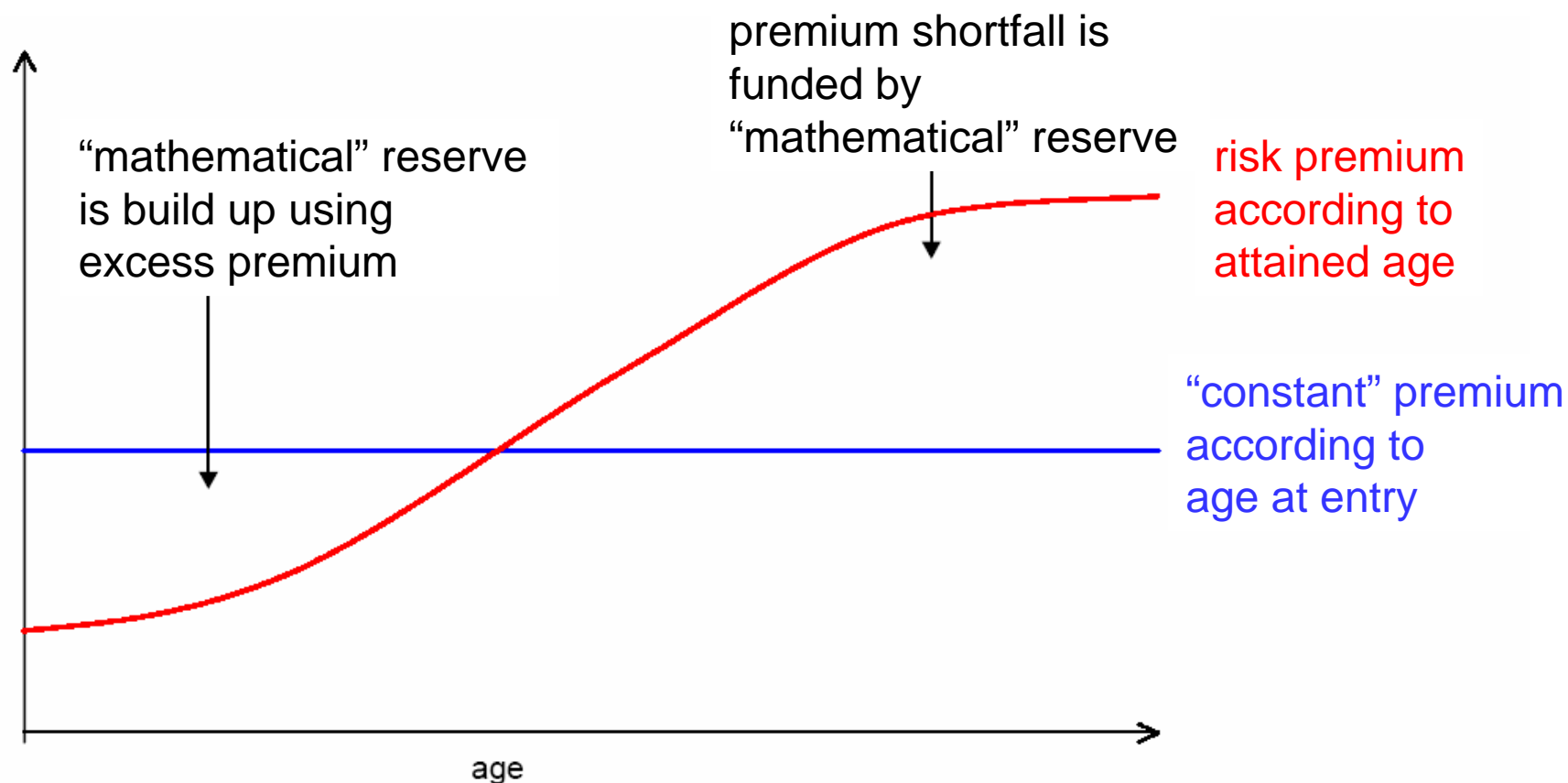
# The German private health insurance

- Premium calculation follows the “principle of equivalence” premiums are calculated as in the life insurance industry:

**Pre-funding**



# The German private health insurance



Source: DKV presentation

# The German private health insurance

- Level premiums are calculated using actuarial principles on an AGE AT ENTRY basis – differentiated by gender
  - Tariff specific
  - Maximum technical rate of interest: 3.5%
  - Use of mortality tables
  - Company-specific lapse rates
  - Per capita claims costs – differentiated by benefit type, age and gender
  - Explicit contingency margin of 5% of gross premium

# The German private health insurance

- What is ignored?
  - Inflation of future claims costs
  - Dynamics of cost for medication
  - Availability of new treatment / procedures or providing of treatment for ever higher ages
  - Long-term mortality improvement
- Hence future premium increases can be “expected”

# Premium adjustment

- Comparison of actual vs. technical claims cost
  - Difference  $> 10\%$ : premium adjustment must be considered
  - Difference  $> 5\%$  but less than  $10\%$ : adjustment possible
  - Difference  $\leq 5\%$ : no premium adjustment
- An independent trustee must be able to verify the need for a premium adjustment
- No cross-subsidy between gender, tariffs, etc. is permissible
- In case of premium increase, insurer must offer alternatives (changes to the tariff with old-age provision transfer)

# The German private health insurance

- Comparing premium levels of comprehensive health insurance plans (incl. out-patient, dental, etc.) which are on offer for at least 10 years, the average level premium for new policies increased by 3.8% p.a.
  - At least 2.6% p.a. (for males) and 1.9% p.a. (for females)
  - At most 8.0% p.a. (for males) and 7.8% p.a. (for females)
- For existing policyholders increases should be higher as the old-age provision (reserve) so far accumulated must be “filled up” to the new level required
- In comparison: maximum contribution to public sick funds increased by 2.0% p.a. but benefits were limited and co-payments increased

Source: Morgen & Morgen, June 2006, 200 different tariffs from 28 providers

# Agenda

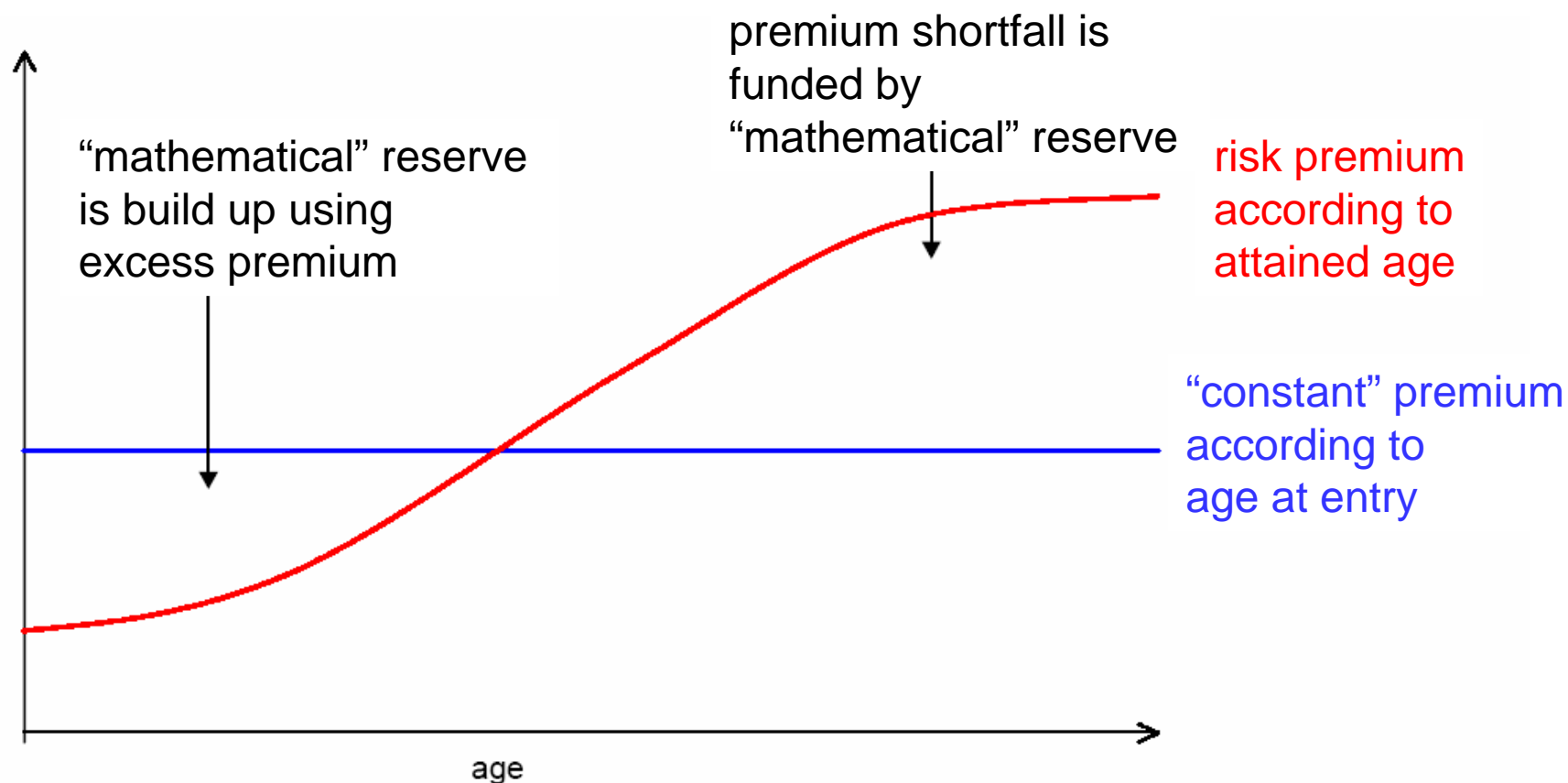
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# Old-age provision / reserve (mathematical reserve)

- In an initial period the level premium includes a savings portion

# The German private health insurance



Source: DKV presentation

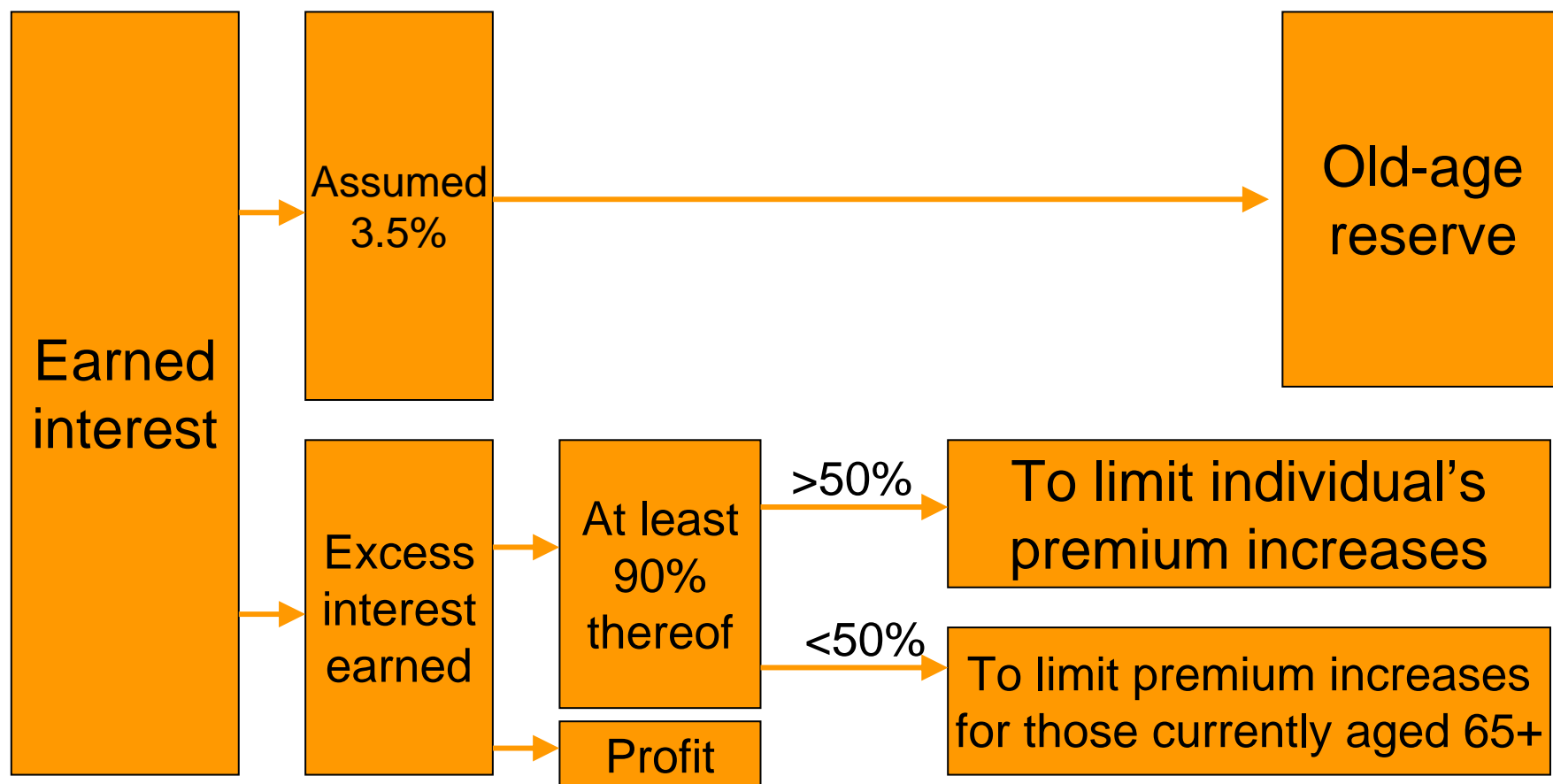
# Old-age provision / reserve

- In 2004, all German private health insurers accumulated a total old-age reserve of €94 bn (about €11,500 per insured or 5x 2004 premium income or 5x the 1992 level)
- The insured's old-age reserve is forfeited in case of death or surrender/lapse

# Old-age provision / reserve

- Private comprehensive health insurance products are participating policies
- 80% of profits must be shared with policyholders and up to 20% with shareholders
- Sources of profits:
  - Investment income on old-age reserves in excess of 3.5% (technical rate of interest) – at most 10% can be distributed to shareholders
  - Technical result

# Old-age provision / reserve



# Old-age provision / reserve

- Since 2000 every insured (below age 61) pays an additional premium (10%) to limit the effect of inflation, higher life expectancy, etc. beyond age 65
- Aim: to limit or even avoid premium adjustment between ages 65 and 80 and premium reduction thereafter

# Old-age provision / reserve

- The level of old-age provision can be reduced by reducing the scope of coverage => the individual can thus limit the extent of premium increase
- Only in special cases (such as for individuals aged 65 and above with a policy duration of 10+ years) a switch to a “standard” tariff is possible with the same health insurer in which case the individual’s old-age provision is transferred

# Old-age provision / reserve

- Announced changes for 2008
  - Health insurers must offer “basic” tariff (similar to scope of public sick funds)
  - In case of switch to a new private health insurer current health insurer must transfer accumulated old-age provision adjusted to the level of the basic tariff
  - This will result in fewer “lapse profits” and thus higher premiums



# German Private Health Insurance Model

- Risks:
  - Political risk
    - Need to reform public sick funds leads to frequent legislative changes
  - Medical underwriting risk
    - Weak underwriting may start a negative spiral (premium insufficiency -> premium increase -> uncompetitiveness -> reduction in new business)
  - Liquidity risk
    - Currently the mathematical reserve is increased on an overall basis month by month; eventually the reserve will be used to support the rising risk rates

# Conclusion

- Public sick funds don't address demographic changes
- Financing of health care cost should be integral part of financial planning for retirement at an early stage
- Savings accounts without insurance are no alternative as they do not offer “financial protection” (missing insurance element)
- Despite a significant build-up of reserves, premium increases are necessary – better some pre-funding than none
- The German private health insurance – though not perfect – is a step in the right direction and should be a model for the public sick funds and does not require the abolition of the “solidarity” principle